



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,275	03/08/2001	Paola Belloni	BOE01 016	6581
7590	03/31/2006		EXAMINER	
Duane Morris LLP 1667 K Street NW Suite 700 Washington, DC 20006			PAYNE, SHARON E	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,275

Applicant(s)

BELLONI ET AL.

Examiner

Sharon E. Payne

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-62, 66-81 and 83 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-62, 66, 69-70, 75, 79-81 and 83 is/are allowed.
- 6) ☒ Claim(s) 67, 68, 71-74 and 76-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The finality of the office action dated 28 December 2005 is rescinded and a non-final office action follows.

Claim Objections

2. Claim 76 is objected to because of the following informalities: the word "units" in line 3 should be "unit." Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 76 is rejected under 35 U.S.C. 102(b) as being anticipated by Nagatani et al. (U.S. Patent 5,863,114).

Regarding claim 76, Nagatani discloses a support structure (Fig. 17, bottom), a light guide forming a cavity (Fig. 23, portion defined by reference number 34L, or 34M, and the frame 31A), a lamp located at the lateral periphery of the cavity for directing light into the cavity (reference number 33-1), at least one optical component carried by the support structure for influencing the light emission properties of the unit for illuminating a space (reference numbers 34L and 34M), the at least one optical component being selected from the group consisting of a plurality of light refractive structures, each adapted to be carried by the support structure (Fig. 23, top) and each having optical properties differing from the others (column 10, lines 5-15).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 67, 68, 71-74, 77 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagatani et al.

Regarding claim 67, Nagatani et al. discloses a light guide forming a cavity (Fig. 23), a lamp located at the lateral periphery thereof (reference number 33-1) for directing light into the cavity (Fig. 23), the plural optical components located outside the cavity or at the periphery thereof (reference numbers 34L and 34M), each of the plural optical components having different light directing properties for influencing the beam path of a portion of the light directed into the cavity (column 10, lines 5-15), wherein the optical components are interchangeable among each unit (column 10, lines 25-35), each unit having one of a plurality of predetermined light emission properties for illuminating a space (Figs. 25-29). Nagatani et al. does not specifically disclose a plurality of units.

Using a plurality of the units described in Nagatani et al. is considered to be an obvious variation. Since the units of Nagatani et al. are well known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of the devices to create a larger display. See M.P.E.P. 2144.04.

Concerning claim 68, Nagatani et al. discloses a light guide forming a cavity (Fig. 23), a lamp located at the lateral periphery thereof (reference number 33-1) for directing light into the cavity (Fig. 23), the plural optical components at the periphery of the cavity (reference numbers 34 L and 34M) each having different light directing properties (Figs. 25-29) for influencing the beam path of a portion of the light directed into the cavity (Figs. 25-29), a method of changing the light emission properties of a selected one of the plurality of units by interchanging optical components having different light directing properties (column 10, lines 25-40). Nagatani et al. does not specifically disclose a plurality of units.

Using a plurality of the units described in Nagatani et al. is considered to be an obvious variation. Since the units of Nagatani et al. are well known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of the devices to create a larger display. See M.P.E.P. 2144.04.

Regarding claims 71 and 73, Nagatani et al. discloses the portion of light influenced by the plural optical components (Fig. 17, 34I and 34J) has not previously passed through one of the plural optical components having light transmitting properties (Fig. 17).

Concerning claim 72, Nagatani discloses a light guide forming a cavity (Fig. 17), a lamp located at the lateral periphery thereof (reference number 33-1) for directing light into the cavity (Fig. 17), and plural optical components (reference numbers 34I and 34J) located outside the cavity (Fig. 17), each of the plural optical components having different light emitting properties for influencing the beam path of a portion of the light directed into the cavity (Figs. 25-29) that has not previously passed through one of the plural optical components having light transmitting properties (Fig. 17), wherein the

Art Unit: 2875

optical components are interchangeable among each unit (column 10, lines 5-40).

Nagatani et al. does not specifically disclose a plurality of units.

Using a plurality of the units, each one having one of a plurality of predetermined light emission properties for illuminating a space, described in Nagatani et al. is considered to be an obvious variation. Since the units of Nagatani et al. are well known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of the devices to create a larger display. See M.P.E.P. 2144.04.

Regarding claim 74, Nagatani et al. discloses a light guide forming a cavity (Fig. 17), a lamp located at the lateral periphery thereof (reference number 33-1) for directing light into the cavity (Fig. 17), the plural optical components having different light directing properties for influencing the beam path of a portion of the light directed into the cavity (Figs. 25-29) that has not previously passed through one of the plural optical components having light transmitting properties (Fig. 17), a method of changing the light emission properties of a selected one of the plurality of units by interchanging optical components having different light directing properties (column 10, lines 5-40). Nagatani et al. does not specifically disclose a plurality of units.

Using a plurality of the units, each one having one of a plurality of predetermined light emission properties for illuminating a space, described in Nagatani et al. is considered to be an obvious variation. Since the units of Nagatani et al. are well known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of the devices to create a larger display. See M.P.E.P. 2144.04.

Concerning claim 77, Nagatani et al. discloses a support structure (Fig. 17, bottom), a plurality of lamps (reference numbers 33-1 and 33-2), and a plurality of optical components, each of the optical components being adapted to be carried by any of the of plurality of support structures (Figs. 25-29, column 10 in lines 5-40), each of the plurality of space lighting units within the system comprising one of the plurality of support structures (Fig. 17, bottom), one or more of the plurality of optical components being carried by the support structure for influencing light emission properties of such unit (Figs. 25-29, column 10 in lines 5-40), the at least one optical component being a plurality of light refractive structures each adapted to be carried by any one of the support structures and each having optical properties differing from the others (Figs. 25-29, column 10 in lines 5-40) and one or more of the plurality of lamps for directing light into a cavity of a guide formed in such unit (reference number 33-1), the lamps being located at the lateral periphery thereof (Fig. 17), the light emission properties of each of the plurality of units being selectively determined by the optical components carried by the support structure of the unit (column 10, lines 5-40). Nagatani et al. does not specifically disclose a plurality of units.

Using a plurality of the units, each one having one of a plurality of predetermined light emission properties for illuminating a space, described in Nagatani et al. is considered to be an obvious variation. Since the units of Nagatani et al. are well known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of the devices to create a larger display. See M.P.E.P. 2144.04.

Regarding claim 78, Nagatani et al. discloses a support structure (Fig. 17, bottom), a light guide forming a cavity (Fig. 17, portion defined by the support structure

Art Unit: 2875

and the plates), a lamp (reference number 33-1) located at the lateral periphery thereof for directing light into the cavity (Fig. 17), one or more optical components carried by the support structure (reference numbers 34I and 34J) for determining the light emission properties of the unit (Fig. 17), the one or more optical components being a plurality of light refractive structures and each having optical properties differing from the others (Figs. 25-29 and column 10 in lines 5-40), a method of selectively determining the light emission properties of each of the plurality of units by the selection of the optical components to be carried by the support structure of such unit (Figs. 25-29 and column 10 in lines 5-40). Nagatani et al. does not specifically disclose a plurality of units.

Using a plurality of the units, each one having one of a plurality of predetermined light emission properties for illuminating a space, described in Nagatani et al. is considered to be an obvious variation. Since the units of Nagatani et al. are well known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of the devices to create a larger display. See M.P.E.P. 2144.04.

Allowable Subject Matter

7. Claims 41-62, 66, 69, 70, 75, 79-81 and 83 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter. The prior art fails to disclose a lighting system having the following components:

1) the step of positioning at least two pre-fabricated light permeable components on the carrier plate with an uncovered region therebetween and positioning a spacer element in the uncovered region as recited in claim 66; and

2) an optical component carried by the carrier plate formed by two or more light permeable elements positioned side-by-side, adjacent light permeable elements being separated by a spacer element as recited in claim 70.

Regarding claims 41, 56 and 69, Simon (U.S. Patent 5,988,841) discloses the support structure comprising a smooth and uninterrupted light permeable plate and Nagatani et al. discloses the other elements, but no motivation exists to combine the references.

Response to Arguments

9. Applicant's arguments with respect to claims 67, 68, 71-74 and 76-78 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Payne whose telephone number is (571) 272-2379. The examiner can normally be reached on regular business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2875

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sep


Stephen Husar
Primary Examiner